Appendix A. Glossary

These definitions are taken from *A Public Health Action Plan to Prevent Heart Disease and Stroke*, published by CDC in 2003.

Age-adjusted mortality rate is the number of deaths occurring per 100,000 population per year, calculated in accordance with a standard age structure to minimize the effect of age differences when rates are compared between populations or over time.

Blood cholesterol is the blood concentration of a family of lipid or "fatty" molecular compounds obtained directly from the diet or produced in the body from fatty dietary components. It is a necessary factor in the development of atherosclerosis; total blood cholesterol concentration is classified as "high" if it is greater than or equal to 200 mg/dL.

Cardiovascular disease (CVD) refers to any of the disorders that affect the circulatory system. These include the following:

- **atherosclerosis**, a pathological condition affecting the medium-size and larger arteries, especially those that supply the heart (the coronary arteries), the brain (the carotid and cerebral arteries), and the lower extremities (the peripheral arteries), as well as the aorta. Atherosclerosis underlies the occurrence of heart attacks, many strokes, peripheral arterial disease, and dissection or rupture of the aorta.

- **congestive heart failure (CHF)**, also known as heart failure, an impairment in the pumping function of the heart due to heart disease. It often leads to physical disability and increased risk of additional cardiovascular events.

- **coronary heart disease (CHD)**, caused by impaired circulation in one or more coronary artery. It is often diagnosed following chest pain (angina pectoris) or a heart attack, CHD is the most common type of cardiovascular disease, causing more than 50% of CVD deaths.

- **diseases of the heart**, based on the International Classification of Diseases (ICD) codes and including coronary heart disease, congestive heart failure, and others. Importantly, this category does not include atherosclerosis or cerebrovascular disease (stroke).

- **heart disease**, referring to any affliction that impairs the structure or function of the heart (e.g., atherosclerotic and hypertensive diseases, congenital heart disease, rheumatic heart disease, and cardiomyopathies).

- **stroke**, also known as cerebrovascular disease, or a brain attack, the interruption of blood supply to the brain due to either an obstruction or rupture of a blood vessel. Stroke that is not fatal often leads to some level of physical or cognitive disability.

High blood pressure, a condition in which the pressure in the arterial circulation is elevated. It is associated with increased risk for heart disease, stroke, chronic kidney disease, and other conditions. Blood pressure is considered "high" if systolic pressure (measured at the peak of contraction of the heart) is greater than or equal to 140 mm Hg or if diastolic pressure (measured at the fullest relaxation of the heart) is greater than or equal to 90 mm Hg.

Hypertension: see high blood pressure

Modifiable characteristics are factors related to CVD risk that are amenable to change (e.g., diet, physical activity, smoking), in contrast to those that are intrinsic to the individual (e.g., age, sex, race, genetic traits).

Primary CVD prevention refers to a set of interventions, including the detection and control of risk factors, designed to prevent the first occurrence of heart attack, heart failure, or stroke among people with identifiable risk factors.

Secondary CVD prevention refers to a set of interventions aimed at survivors of acute CVD events (e.g., heart attack, heart failure, stroke) or others with known CVD in which long-term case management is used to reduce disability and risk for subsequent CVD events.

Appendix B. Description of existing data systems

The State of Washington **Behavioral Risk Factor Surveillance System (BRFSS)** is a large, continuously conducted, telephone health survey that enables the CDC, state health departments, and other health agencies to monitor modifiable risk factors for chronic diseases and other leading causes of death. Self-reported BRFSS data are gathered from a randomly selected sample of adults living in households with telephones. Interviews, conducted by a survey firm under contract to DOH, follow protocols for survey administration that have been established by the Centers for Disease Control and Prevention (CDC). Computer-assisted interviewing is used to minimize errors by interviewers. The questionnaire includes core questions used by all states and questions on topics of specific interest to Washington. Data used in this report represent English-speaking adults age 18 years and older in households with telephones.

The **Comprehensive Hospital Abstract Reporting Systems (CHARS)** provides data on inpatient stays for all patients treated in state-licensed acute care hospitals in Washington on an annual basis. CHARS does not include visits to emergency rooms, outpatient surgery, outpatient clinics, psychiatric, military and Department of Veterans Affairs hospitals,[1] free-standing surgeries, mental health, substance abuse, and rehabilitation centers, and birthing centers. Hospitals collect data by abstracting information from the uniform billing form. They then code each diagnosis and procedure and submit data to the state CHARS contractor by tape, cartridge, or electronic file transfer within 45 days of the end of the month. Diagnoses associated with each hospitalization are coded according to the International Classification of Disease, Clinical Modification of the Ninth Revision (ICD-9-CM).

The principal diagnosis is the first-listed diagnosis, considered to be the main reason the patient was admitted to the hospital. Beginning in 1993, as many as eight other diagnoses may be listed for additional conditions that had an effect on the hospitalization. On a quarterly basis, hospitals certify that the number of discharges and hospital charges are 95% correct. Several Washington State Department of Health studies have verified the accuracy of CHARS data.

The **Death Certificate System** provides annual information on all deaths in Washington and those of Washington residents who die in other states “estimated 99% complete”. Demographic information is gathered by the funeral director; cause of death is reported by the attending physician or the coroner/medical examiner. Instruction manuals are provided to physicians, coroners, and medical examiners, as well as local health jurisdictions and others involved in completing and managing death certificates. The certificate is filed with the local health jurisdiction, retained for about 60 days for local issuance purposes, then filed with the Department of Health. Classification and coding of data on Washington death records follow the National Center for Health Statistics (NCHS) guidelines as defined in Vital Statistics Instruction Manuals parts 1-20 (Published by the U.S. Department of Health and Human Services, Public Health Service, CDC, National Center for Health Statistics, Hyattsville, MD). Causes of death are coded according to the International Classification of Disease, World Health Organization, Ninth Revision (ICD-9) for 1979-1998; Tenth revision (ICD-10) for 1999 and later. Edits and a physician query system are used to check for internal consistency and logic and completeness of cause of death.

Appendix C. Endnotes

1. Washington State Department of Health. *Health of Washington State*. Olympia, WA, 2002 Aug [cited May 24, 2005], 418p. Available from http://www.doh.wa.gov/HWS/HWS2002.htm

2. BRFSS is a continuously conducted telephone health survey that enables health agencies to monitor modifiable risk factors for chronic disease. For more information, see Appendix B.

3. *Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)*. National Heart, Lung, and Blood Institute. Bethesda, MD. JAMA 2003;289:2560-71.

4. *Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III)*. National Heart, Lung, and Blood Institute, Bethesda, MD. NIH Publication No. 01-3670. May 2001.

5. Washington State EMS and Trauma Steering Committee. *State of the State: Emergency Cardiovascular Care in Washington State.* Nov. 15, 2002.

6. U.S. Department of Health and Human Services. *A Public Health Action Plan to Prevent Heart Disease and Stroke.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2003.

7. *The Future of Public Health.* Institute of Medicine. Washington, DC: National Academy Press, 1988.

8. CHARS provides data on inpatient stays for all patients treated in state-licensed acute care hospitals in Washington. For more information, see Appendix B.

9. The Death Certificate System provides annual information on all deaths in Washington and those of Washington residents who die in other states. For more information, see Appendix B.

10. Wagner EH. *Chronic disease management: what will it take to improve care for chronic illness?* Effective Clinical Practice. 1998;1:2-4. http://www.improvingchroniccare.org. This model identifies the essential elements of a health care delivery system that encourages high quality chronic disease and preventive care. It is developed by Improving Chronic Illness Care, a national program supported by the Robert Wood Johnson Foundation with direction and technical assistance provided by Group Health Cooperative's Sandy MacColl Institute for Healthcare Innovation.